

LITHIUM-FREE SOLID-STATE BATTERY

PRODUCT DATA SHEET MODEL **TNO-S-84Wh Pouch** (파우치형 · EV / ESS / UPS)

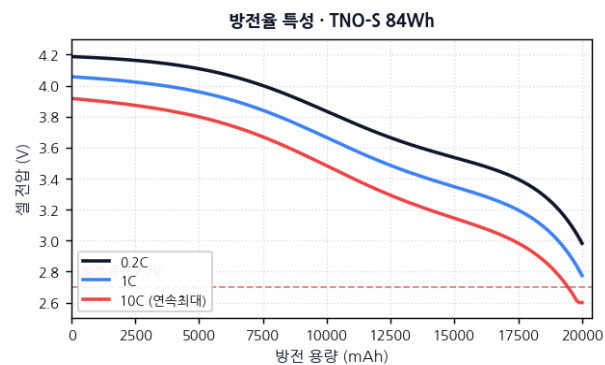
● CELL CHARACTERISTICS

Capacity	Normal	20.5Ah	Minimum	20Ah
	Energy	84.0 Wh	Min. E.	82.0 Wh
Cell Voltage	Nominal	4.1 V	Charge	4.2 V
	Discharge Cut-off	2.5 V	Chemistry	TNO-S Solid
Impedance	AC, 1000Hz	≤ 1.5mΩ	Weight	350g

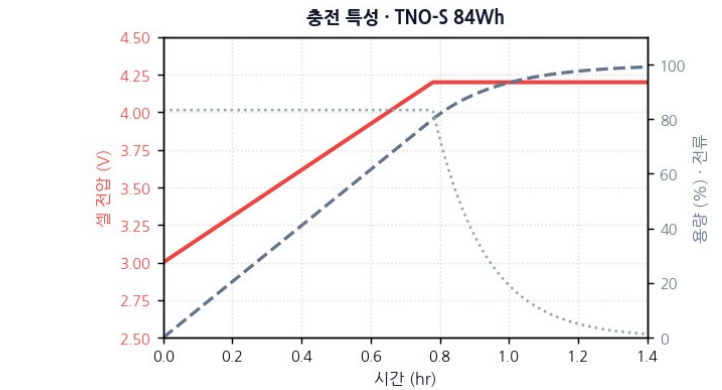
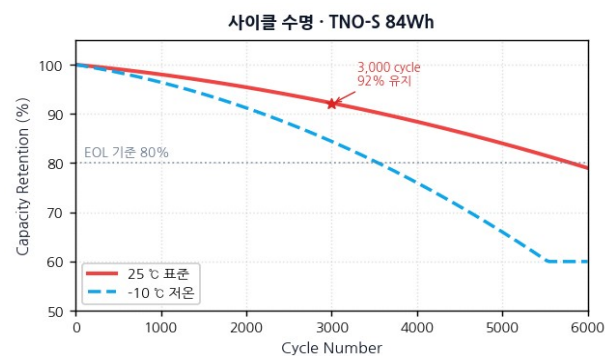
● Charge Characteristics

Charge (70°C cut-off)	Standard	1C	Maximum	2C
Cut-off	Voltage	4.2 V	Current	1.0Ah

● Discharge Rate Characteristics



● Cycle Characteristics @ -36.8°C



Discharge	Standard	1C	Pulse	8 C / 10 sec · 10 C / 5 sec 펄스
Ambient Temperature	Charge	-25 °C ~ +60 °C (70 °C cut-off)	Discharge	-36.8 °C ~ +80 °C (80 °C cut-off)
Energy Density	Volumetric	474Wh/L	Gravimetric	247Wh/kg
Cycle Life	UL Lifecycle	8 년	Cycles	3,000+ @25°C

● Physical Characteristics



APPLICATION · ESS · 산업용 UPS · 하이브리드 EV

KCC 시험성적서 (KTC)	UL 열폭주 (Thermal Runaway)	UL Lifecycle (10 년 검증)
GT2025-14018	ULTR-2025-14018	ULLC-2025-14018
KBIA SPS-C KBIA-10104-03 · KC 안전인증 · IATF 16949 · CE · FCC · NATO 7.62 mm 관통시험통과		
KOREA HEADQUARTERS BK Dongyeong Tech Co., Ltd. 경기도 수원시 권선구 오목천로 152 번길 75 TEL: 031-295-4046	GIMJE MASS-PRODUCTION PLANT 전라북도김제시 김제산업단지 13,885 m ² · 0.3 GWh/y Class 5,000 Cleanroom	CONTACT Web: www.bk-dongyeong.com IR: ir@bk-dongyeong.com Sales: contact@bk-dongyeong.com

Cable and Wiring Considerations for Pouch Cell Testing

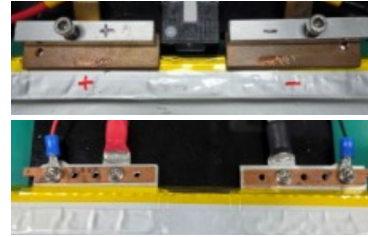
BK Pouch Product capacity 84Wh/4.2V_20A

1. Select a cable based on the capacity to be charged/discharged_Refer to the table
2. The pouch terminal and the measurement cable must be tightly secured_Refer to photo

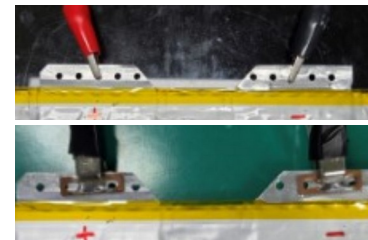
	도체 [가닥수/mm]	스케어 [mm]	내경 [mm]	피복두께 [mm]	실리콘 포함 외경[mm]	도체저항값 [Ω/KM]	암페어 [A]	최대 암페어[A]
95SQ	19000/0.08	95	12.75	2.65	18	0.18	500	955
75SQ	15000/0.08	75	11.5	2.4	15.5	0.45	400	840
1AWG	10000/0.08	50	9.2	2.4	14	0.63	300	630
2AWG	6700/0.08	33.5	7.75	2.4	13	0.89	200	500
4AWG	5000/0.08	25	6.55	2.4	11	1.25	180	400
5AWG	4000/0.08	20	5.85	1.85	9.5	1.5	160	350
6AWG	3200/0.08	16	5.25	1.65	8.5	1.9	140	300
7AWG	2400/0.08	12	4.55	1.35	7.2	2.6	100	240
8AWG	1650/0.08	8.25	3.75	1.35	6	3.7	80	190
9AWG	1200/0.08	6	3.2	1.35	6	5.5	60	155
10AWG	1050/0.08	5.25	3	1.3	5.5	6.3	50	140
11AWG	750/0.08	3.8	2.55	1.2	5	8.3	40	105
12AWG	680/0.08	3.4	2.4	1.05	4.5	10	30	88
13AWG	500/0.08	2.5	2.05	1	4	12.5	25	70
14AWG	400/0.08	2	1.85	0.9	3.5	15	20	55
15AWG	300/0.08	1.5	1.6	0.8	3.2	20	15	42
16AWG	252/0.08	1.26	1.45	0.75	3	25	10	35
17AWG	210/0.08	1.05	1.35	0.68	2.7	30	8	30
18AWG	150/0.08	0.75	1.15	0.55	2.3	39.5	6	22
20AWG	100/0.08	0.5	0.95	0.45	1.8	63	5	13
22AWG	60/0.08	0.3	0.72	0.45	1.7	88.5	3	8
24AWG	40/0.08	0.2	0.58	0.45	1.6	97.6	2	5
26AWG	30/0.08	0.15	0.5	0.45	1.5	125	1.5	3.5
28AWG	16/0.08	0.08	0.37	0.4	1.2	225	0.8	1.25
30AWG	11/0.08	0.055	0.31	0.3	0.8	335	0.6	0.8

※ We recommend using it within 80% of the allowable current.
 ※ Please check the allowable current and select a product one level higher than the matching cable.

Terminal connection image



Recommended wiring image



Non-recommended wiring image